

AMENDMENTS TO THE CLAIMS

1. (Original) A process for the preparation of barium titanate powders, comprising separately and simultaneously introducing into a high-gravity reactor an aqueous solution (I) containing salts or organometallic compounds of barium and titanium, preheated to a temperature of from 60°C to 65°C, and having a Ba/Ti the molar ratio of Ba/Ti of more than 1, and an aqueous basic solution (II) containing an inorganic or organic base, preheated to a temperature of from 60°C to 100°C; injected and performing the reaction of the solution (I) with the solution (II) the process at a temperature of from 60°C to 100°C, while maintaining the reaction mixture at a constant OH⁻ concentration, then filtrating and cleaning washing the resulting powdery reaction product with deionized water to remove impurity ions and the excessive barium ions, and finally, dried drying to obtain barium titanate powdersthe product.

2. (Original) A process according to claim 1, in which in the solution (I), the total concentration of metal ions(Ba²⁺+Ti⁴⁺) ranges from 0.1 to 2.0 mol/L and the Ba/Ti molar ratio is more than 1, preferably from 1.2 to 2.0, and the base concentration in the solution (II) ranges from 3 to 15 mol/L.

3. (Original) A process according to claim 1, in which the flow rates of the solutions (I) and (II) vary from 5 to 300L/h.

4. (Original) A process according to claim 1, in which the flow rate ratio of solution (I) to solution (II) ranges from 0.5 to 10.

5. (Original) A process according to claim 1, in which the pH value of the reaction mixture is maintained constant at about 14.

6. (Original) A process according to claim 1, in which the salts of barium and titanium are selected from the group consisting of halides, nitrate, acetate, perchlorate, oxalate and alkoxides, and the base is selected from the group consisting of alkali metal or alkali-earth metal hydroxides, and quaternary ammonium bases.

7. (Original) A process according to claim 1, in which the salts are chlorides and the base is NaOH, KOH or quaternary ammonium bases.

8. (Original) A process according to claim 6, in which the quaternary ammonium bases are tetramethylammonium hydroxide.

9. (Original) A process according to claim 1, in which said high-gravity reactor is a rotating packed-bed reactor and the high-gravity level of the rotating packed-bed reactor ranges from 1.25G to 12,500G.

10. (Currently Amended) A barium Barium titrate powder powders prepared produced by the process of claim 1, according to any one of claims 1 to 9, consisting essentially of primary crystalline particles having a uniform particle size and an approximately spherical morphology.

11. (Currently Amended) A ceramic Ceramics produced by the process of obtained by sintering the barium titrate powders according to powder of claim 10.

12. (Currently Amended) The ceramic of Ceramics according to claim 11, wherein the ceramic exhibits exhibiting uniform microstructures, homogeneous chemical compositions, small grain sizes, and a dielectric constants as high as of up to about 2,500.